Spring 14

MICROSOFT MOBILE

A new competitive advantage over the cloud

Nova School of Business and Economics Work Project based on Cems Business Project

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1. BRIEF CONTEXT OF THE BUSINESS PROJECT

1.1. MICROSOFT MOBILE

Microsoft Mobile is a multinational mobile device and service manufacturing company headquartered in Espoo, Finland, and a wholly owned subsidiary of Microsoft Corporation (MS, from now on). The company was founded on Friday, 25th of April 2014, as a result of "Nokia Devices and services division" acquisition by MS. MS Mobile activities are focused on design, development, production and distribution of mobile phones, smartphones, tablet computers, operating systems and software. Together with the Nokia Phone Business, as part of a 10-year licensing agreement, MS acquired also Nokia's Qualcomm processor IP licenses (Reuters, 2008), the right to sell mobile phones under the Nokia brand, the licenses for Nokia patents and Nokia Here mapping service to use across MS's products (Microsoft, 2014).

1.2 THE MARKET OPPORTUNITY

"Affordable smartphones" are defined as a new generation of smartphones that present several features of premium products at a lower price, or with lower quality of components, mainly targeting emerging economies. In these regions, people are largely moving from having no Internet connection at all, to accessing the web via the mobile platform. The number of mobile connections worldwide is expected to increase by $1.6bn to $8.2bn in 2017. On average more than 60% of the smartphone users are currently using their first phones in their life in emerging markets. When looking at statistics, selling smart devices in these markets is no more an opportunity but a top priority for mobile companies. The market is worth 50 billion $ and according to IDC, developing markets are expected to account for 64.8% of all smartphones shipped during 2013, up from 43.1% in 2010. As a result, the average smartphone selling price has fallen from $443 in 2011 and $407 in 2012 to $327 in 2013 (Nokia, the next billion). Microsoft Mobile aims to serve the next billion users connecting to Internet for their first time.

1.3 CURRENT CLIENT SITUATION

Currently, Microsoft Mobile device offer comprises four product lines in three market segments: *Numbered*, *Asha*, *X* and *Lumia*. Numbered are low-cost feauture phones with T9 keyboard and small screen targeting the low-end of the market. In the

affordable smartphone segment, *Asha* is a low-priced product line that aims to offer touchscreen products running the Nokia's S40 OS mainly in emerging economies. In the same market segment, with high quality features at a higher price, the *X* line is Nokia's newest smartphone line developed with the intention to conquer the next billion of users. *X* is a controversial line since it operates through the AOSP platform, one of Microsoft main competitors. Finally, *Lumia* is the high-end smartphone family mounting Windows OS and targeting western economies, in particular businesses.

1.4 THE BUSINESS PROJECT CHALLENGE

The mobile phone industry is facing high competition and becoming saturated. While Nokia's mobile phone sales are decreasing, Microsoft's software services are still market leaders in their segment. Microsoft acquisition represents then an opportunity for the new born Microsoft Mobile, as it brings together Microsoft's core competencies in software and Nokia's core competencies in telecommunications hardware. This is a game-changing opportunity to serve the next billion people who will access Internet for the first time through their mobile. By promoting alternative business models tailored on emerging market industry trends, consumers will be incentivized to join the Microsoft ecosystem and benefit from the co-specialized added value generated by its partners.

1.5 SUMMARY OF CONCLUSIONS

The first business model was designed for advertising in emerging markets since it will significantly increase in the future. By incorporating Bing Ads platform in Microsoft Mobile devices, the end consumers are watching ads in return for Microsoft products' facilitations (Skype credits, OneDrive additional space, Xbox games).

The second alternative for monetization builds on main purchase drivers in emerging markets: price and phone customization. Relying on the best supply chain in the industry, Microsoft adds the option to customize phones online giving the possibility to users to control the price and increasing margins on personalized products.

Finally, giving the innovativeness of MS Mobile affordable smartphones, a community of developers must be created for achieving legitimacy in the app world. By contributing to the next local killer app in emerging markets, changing existing technology and promoting internal marketplaces, MS completes its ecosystem.

2. MICROSOFT MOBILE COMPETITIVE POSITIONING

In the "New business models for the next billion" BP the whole value creation process was analyzed from Nokia's perspective leveraging on MS products more than on corporate's resources that can create and sustain competitive advantage. From an initial literature review on two-sided markets and ecosystems, the analysis of product lines, a benchmarking on successful business practices and the recognition of relevant industry trends, the group designed three tailored solutions for monetizing the next billion users opportunity. This approach, however, didn't take into account the complex dynamics in the value chain, the industry attractiveness and the intensity of competition in the mobile phone industry. The analysis of these components recognizes new stakeholders and new resources involved in the value creation process that might condition the new company's competitive positioning in emerging markets, and consequently the feasibility of the recommended business models.

2.1 SMARTPHONE VALUE CHAIN CHARACTERIZATION

Value chain roles in the smartphone industry can be categorized using the model "Rethinking traditional organization" developed by Hagel and Singer in 1999. Mobile producers were originally vertically integrated, from production of components to after-sale services, until the end of last century. However, due to a reduction in interaction costs and the increasing complexity of devices, companies started to unbundle their core processes and consequently creating room for new specialized companies focused mainly in 3 areas: product innovation, operations, and customer relations. These categories contain the following activities: *Product innovation* which comprises R&D, design and new product development, *Operations* (or infrastructure Management) that includes process engineering, manufacturing, assembly and logistics, and finally *Customer relations* which involves sales and marketing, distribution, customer service, and technical support.

2.1.1. MICROSOFT MOBILE VALUE CHAIN DYNAMICS

Microsoft Mobile presents a complex value chain. The device manufacturer designs, develops, manufactures, and markets technology products and services. Microsoft Mobile's business is built on product innovation, a high degree of localization and one of the most efficient supply chains of the industry, heritage of Nokia

(Supplychain, 2014). Sourcing of mobile components will be performed using Nokia existing infrastructure, supplying components for its devices are coming from more than 35 countries. R&D and Design will build on new synergies between the two companies reducing the cost of development and providing an increased integration between hardware and software. Microsoft Mobile will assemble its products using existing former Nokia facilities, avoiding MS's outsourcing of production for its Surface tablet. Ms Mobile will distribute its devices through big distributors, local vendors, Online Store, local operators, but also through Microsoft Point of Sales in the US and in Canada which original product offering was limited to the Surface tablet. Company's and third-party developers services will be distributed through the relevant Application stores. Customer support will be provided telephonically, online and in-store. (Exhibit 1)

2.2 THE DEVICE MANUFACTURING INDUSTRY

After the analysis of the device value chain, it is important to focus on its main phase for Microsoft Mobile. A deep analysis on this industry is performed, going through the attractiveness of the industry, the intensity of competition and the profitability.

2.2.1 ANALYZING THE COMPETITIVE MARKET

In order to analyze whether an industry is attractive or not, it is useful to apply the Five Forces' framework by Michael Porter for determining competitive forces and external factors impacting the organization. (Porter, 2008)

The first parameter to consider is the *threat of new entrants*. In the Mobile Manufacturing industry, in the last decade, many new brands have entered the market, especially by targeting emerging markets. Broad availability of cheap components in growing economies lowered the barriers to entry in this market. According to a Nokia employee interviewed during the BP, an independent white brand is able to develop and sell a product in only 21 days. Nowadays, Samsung is the industry leader with about one third of Smartphone world sales followed by Apple and Huawei (Exhibit 2) Apple has the most loyal customers, right before Samsung and HTC (Exhibit 3). Despite the easiness in producing an affordable smartphone, still brand is the second most important purchase driver in developing markets (Exhibit 4). keeping the fierce of competition very high among the top vendors. This force can consequently be

considered moderate. Regarding the *bargaining power of suppliers*, the majority of Devices' components are located in Pacific Asian countries because of cheap labor and material cost. These suppliers are usually poor, competing against each other and considerably relying on their long-term relationships with buyers. Whenever the component is critical, or the provider a multinational semi-conductor company, the OEM has established long-term contracts in order to avoid eventual conflicts. (It is an example the case of the Qualcomm IP licenses purchased by Nokia in 2008). Therefore, the bargaining power of suppliers is low since the Smartphone assembler can easily change component provider. *Competitive rivalry* in the industry is instead a force extremely high. Many companies have eroded their leading market share by ignoring new technology trends in the industry. The case of Nokia is emblematic, but also RIM, Sony Ericsson and Motorola are companies that weren't able to sustain their competitive advantage. New Asian players like Samsung, LG, HTC at first, and nowadays Lenovo, Huawei and ZTE, were able to deliver superior features at a lower price. The outsider Apple, which changed the market in 2007 by introducing the iPhone, maintains its leadership role in the high-end segment. However, the battle is not just limited to devices features, but also to operating systems. In this specific case the degree of rivalry is extremely low since the market is divided just between two competitors (Google Android and Apple OSX), leaving only 4,3% market share to other competitors which are not able to differentiate and increase their market adoption (Exhibit 5). *Bargaining power of buyers* depends surely on the degree of loyalty towards the brand, but also on the price and on operators' offer. When focusing on the high-end of the market, the power of buyers is moderate: an iPhone user substitutes his smartphone with another iPhone in 78% of the cases, 52% in the case of Samsung. However, this fact is observable in developed markets as a consequence of its matureness: replacement sold units represented ~49% of total shipments in 2013 and are above 50% since 2004 in the Western world as observable in Exhibit 6 and 7. Despite in these geographies price is not among the main purchase drivers, in the past operators were able to accelerate the adoption of smartphones by providing handset subsidies (Tallberg et al., 2007). These particular buyers (B2B) represent definitely a moderate threat to smartphone manufacturers since they provide benefits to entire value chain by increasing volumes (J.Dedrick, 2011). When focusing on affordable smartphone segment and emerging markets, the buyers count even more. Emerging brands like Micromax are able to deliver a product with similar characteristic at half of

the price pushing top vendors companies to exit the affordable smartphone segment or to look for new business models to compensate the difference in price. The force can be overall perceived as moderately high. Lastly, the *threat of substitutes* is considered very low since manufacturers are expanding horizontally their product line originally with tablets, now with hybrid between smartphones and tablets, namely "Phablets". Generally, the smartphone industry can still be considered somehow attractive, due to its lack of substitutes, the possibility to enter the market (even if with very low profits) and the limited power of suppliers. However, increasing power of buyers and fierce competition on price over a standard operating system, are clear signals that the industry is commoditizing. Worldwide, the Mobile Phone market never stopped its growth (Exhibit 8). Forecasts show a very positive trend by indicating a CAGR of 18.4% in the time span between 2013 and 2017 (IDC, 2013). However, the product categories sold in the market are rapidly changing. Initially made just of feature phones, in 2007 the smartphones were introduced into the market. Smart devices overtook in sales the feature phones in 2010 (exhibit 9). As mentioned above, other categories were later introduced in the OEM market: in 2009 the iPad revived the tablet category and in 2011 Samsung presented the Phablet. Both products are expected to grow in the next years reducing even more the market value of feature phones (Exhibit 10) and to increasingly penetrate the user base (Exhibit 11) due to a considerable reduction in prices, especially in EU and emerging economies (Exhibit 12). In terms of market players, five companies represent the 53,5 % of the Mobile Devices vendors and 61% of the Smartphone category in 2013 (Exhibit 13). The industry is becoming more and more fragmented as observable also by analyzing the HHI (Exhibit 14). Nokia is still present as the second best seller company in the mobile device segment but has exited the top 5 Smartphone Vendors in 2011 (Exhibit 2).

2.3 MICROSOFT MOBILE

2.3.1 MICROSOFT BEFORE THE ACQUISITION

MS is surely not approaching the mobile opportunity for the first time. Windows Mobile OS was developed in 2000 with the intention to replicate the PC success. However, mobile devices were not PCs and the consumers were asking for a disruptive experience that could be fairly different from the "computing" one, since it

was embedded in everyone's daily life. Smart devices are responsible for the decline of the PC industry, and consequently MS's cash cows. MS's prior acquisition revenues came from two segments: Entertainment and Devices, and Business division. The first one grew 12% in the Q3 of 2014 ($8.30Bn) and comprises Xbox gaming, Skype and Bing searches, Office 365, Windows OEM licenses (PCs and Smartphones) and Surface tablet. The second grew 7% ($12.23Bn) and comprises Office 365 Pro, Azure Clouding service, MS business licensing, and productivity server offering. The company sustained its competitive advantage through a volume leadership strategy supported by size advantages (Windows is the ubiquitous OS, huge installed base, network externalities and buyers' switching costs). Other resources were identifiable in Brand and exclusive patents (PC and Mobile industry).

2.3.2 LESSONS LEARNED FROM THE MOBILE INDUSTRY

Before developing a strategy for achieving competitive advantage in the mobile industry, it is important to look at those factors that might affect profitability of MS Mobile. In the mobile ecosystem companies collect revenues by selling devices or services. MS have already understood that licensing a MS OS is not profitable, since they made its OS available for free in April (ExtremeTech, 2014). Like in any other industry OEMs sustain their competitive advantage through a cost advantage strategy (Micromax), or a differentiation strategy based on price leadership (Apple), Volume leadership serving every segment (Samsung), or Total cost leadership in the supply chain (Former Nokia). Moreover, patents represent a significant cost for manufacturers -15/20% - (Stratechery, 2014), and a considerable source of revenues for owners, but they are not respected in Asian markets. Finally, if the company is selling services, it must assure Multi-homing (crossing ecosystems), providing an adequate cloud environment and creating further monetization opportunities.

2.3.3 STRATEGY FOR COMPETITIVE ADVANTAGE

Despite many insiders describe the marriage as a "fail plus fail equals more fail" (WallStreetCheet, 2014), MS acquired Nokia with the intent to build an ecosystem that can fairly compete with the other two market leaders. Notwithstanding the challenges, a detailed analysis reveals the possible route to follow. Many analysts and market experts criticize the lack of uniformity between MS OSs. Different software

run PCs, Tablets and Smartphones and MS was not able to conquer the mind of consumers with a common platform. Differently from the PC market, MS wasn't able to lock-in mobile consumers enabling them to get familiar with competitors' platform, increasing switching costs. Moreover, the advantage of a Windows platform has been vanished with the introduction of exclusive MS services on other OSs. Therefore, it would be recommended as a first strategy to quit the Windows platform since MS can create a proper ecosystem by using the most popular platform, a proprietary version of AOSP for its mobile devices (All Android Apps except Google services that will be run by Microsoft). Furthermore, knowing that wrong pricing contributed to the failure of Nokia and that volumes are as much important as margins in this industry, MS Mobile has the possibility to leverage on its new brand image for creating different competitive advantage. After exiting the market of feature phones since it became unprofitable and is decreasing, the new company can build a different strategy according to product line in order to create a MS Mobile ecosystem. Asha, X and cheap Surface lines will follow a Total Cost Leadership in emerging markets by leveraging on the win-win opportunities that the advertising model provide to operators. Using Nokia privileged relationships with carriers and providing them with additional revenues, operators can significantly subsidize the phone, increasing their sales due to the reduction in prices and build an ecosystem for the next billion that incorporates MS cloud services for monetisation opportunities and increased consumer perceived benefits. At the same time, the new Lumia and Surface running Android will serve the business consumers in emerging and developed markets through a price leadership strategy: devices will be sold at a premium. By providing client intimacy through tailored IT consulting solutions and interactions of MS Mobile Services with PCs ans Servers MS products, the company can exploit considerable margins and create size advantages (positive network externalities). Finally, as part of a long-term strategy, It might be suggested to sell the device business to an Asian manufacturer for generating further revenues on patents licensing. In the industry analysis it has been observed how the market is commoditizing: in the words of Roland Klingebiel, Warwick Business School assistant professor of strategy, "Smartphones will turn into mere windows to the cloud. There will be little that differentiates one black rectangular touchscreen from another, besides perhaps screen quality and battery life" (Computerweekly, 2014). Microsoft will have a competitive positioning when the industry will evolve, having

captured consumers in its cloud ecosystem and relying on its unique resources in the mobile industry.

3. REFLECTION ON LEARNING

Even tough this business project was articulated for Microsoft Mobile strategy department, and my Master Major is in Strategy, I've approached many concepts for the first time during these five months. Certainly the knowledge acquired from Corporate Strategy and Strategy in Global Markets courses provided me with the frameworks for analyzing the internal and external state of the company, and the importance of value innovation and value co-creation was not new to me after my first course at Nova, Innovation Management. However, I've found very enriching the introduction to the notion of ecosystem and two-sided market. During my strategy courses, it has been asked many times to break down the value chain activities from the company's perspective, from the left to the right, from raw materials to the consumer, without focusing on the interconnected relationships among third parts that provide co-opetition and specialized added value not only to the platform leader, but also to the entire ecosystem. It also never happened to consider the case of a two-sided value chain in which external companies create value for the consumers, and consumers create value to those companies under the supervision of a "keystone leader". In a world that is increasingly moving towards ICT it is important to expand in strategy classes the concept of value chain beyond a linear perspective by adopting a value network analysis. Moreover, albeit five years of management studies and more than eight among strategy and entrepreneurship courses, this semester I've been introduced for the first time to the business model canvas formulation, a lean startup template for developing or documenting new or existing business models introduced by Alexander Osterwalder in 2008. Suggested by McKinsey & Company during our project consulting, I've found useful this concept also outside my academic life: I've developed a business canvas for the business idea I'm working on and included it in business plan and investors' material.

Personally, I think I have positively contributed to this project by providing ideas and suggesting possible recommendations. I have surprisingly found myself able to work under pressure and to coordinate the project towards the end. The task has been challenging since the incentives of group members were not aligned and our academic

tutor has not been very collaborative. During this project I've also discovered that being too polite might be a weakness sometimes. Despite a project management plan and milestones well defined, some members didn't deliver their parts on time and decided to abandon the project in the last two weeks for pursuing personal achievements. Despite these issues, I think this was the most valuable business project I could work on. Not because of the scope of the assignment, or the group's contribution to the project's outcome, or the support of the corporate and academic sides, or the innovativeness of our ideas, but because the "new business models for the next billion" were developed during a major transition in former world's biggest mobile phone company, Nokia. In classes we usually discuss acquisitions and possible implications always from an outside perspective, we analyze indicators and easily suggest how to cut costs and improve profitability. Our advices are independent, pragmatic, built on numbers; it is the nature of business academia. Going through an acquisition is a completely different experience. It is not anymore related only to performance indicators and business theories, it involves instead the superior importance of human relationships. I think that understanding how differently people react to change was the most important takeaway from this project. During the assignment we interviewed many Nokia employees, from different divisions and levels. Some of them were very difficult to approach because were actively involved in the transition: the deal was in completion, they had to travel a lot the United States and they were highly excited about the acquisition. Relying on a sure future position in MS Mobile, they were asking us to omit Nokia's logo or references from our presentations, trying to build a new corporate culture already before the acquisition. Some others, Finnish daily working in Espoo's HQ, were difficult to approach because of their discouragement towards company's future. Nokia was Finland, and Finland was Nokia. The acquisition poses doubts on future employment and country's future innovations, so they were not very collaborative in sharing information and opinions. Also Microsoft initiatives didn't help the transition. From a corporate culture perspective, I was surprised by Microsoft's first direct moves after the acquisition. The Monday after the deal (Friday), together with the Nokia signs outside Nokia House HQ, also the @nokia.com employees' email accounts were removed and redirected to @microsoft.com only for a period of 90 days. It is quite a disruptive change. As a final reflection on what it could be performed better, I think we would have created a better project by including a

competitive positioning analysis of the new company, as performed in this work project, but also by directly approaching MS. I've found out that due to legal issues companies' strategy departments couldn't directly communicate before the end of the deal but, as an independent consulting project, our Cems business project would have benefit from both companies' perspectives, offering an even more complete recommendation.

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ABBREVIATIONS:

Retreived from Wikipedia.com

OS: An operating system (OS) is a collection of software that manages computer hardware resources and provides common services for computer programs.

OEM: An original equipment manufacturer, or OEM, manufactures products or components that are purchased by another company and retailed under that purchasing company's brand name

HHI: The Herfindahl index (also known as Herfindahl–Hirschman Index, or HHI) is a measure of the size of firms in relation to the industry and an indicator of the amount of competition among them.

CAGR: Compound annual growth rate (CAGR) is a business and investing specific term for the geometric progression ratio that provides a constant rate of return over the time period.

Bn: abbreviation for billions

IP: Intellectual property (IP) rights are the legally recognized exclusive rights to creations of the mind.

T9: T-9, which stands for Text on 9 keys, is a USA-patented predictive text technology for mobile phones (specifically those that contain a 3x4 numeric keypad).

B2B: Business to Business

AOSP: Android Open Source Project (AOSP) source code to develop and distribute their own modified versions of the operating system.

ICT: Information and communications technology (ICT) is often used as an extended synonym for information technology (IT), but is a more specific term that stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals), computers as well as necessary enterprise software, middleware, storage, and audio-visual systems, which enable users to access, store, transmit, and manipulate information.

HQ: Headquarter

MOS: Microsoft Operating System

MS: Microsoft

~: about

BP: Business Project

APPENDIX

EXHIBIT 1: MICROSOFT MOBILE VALUE CHAIN

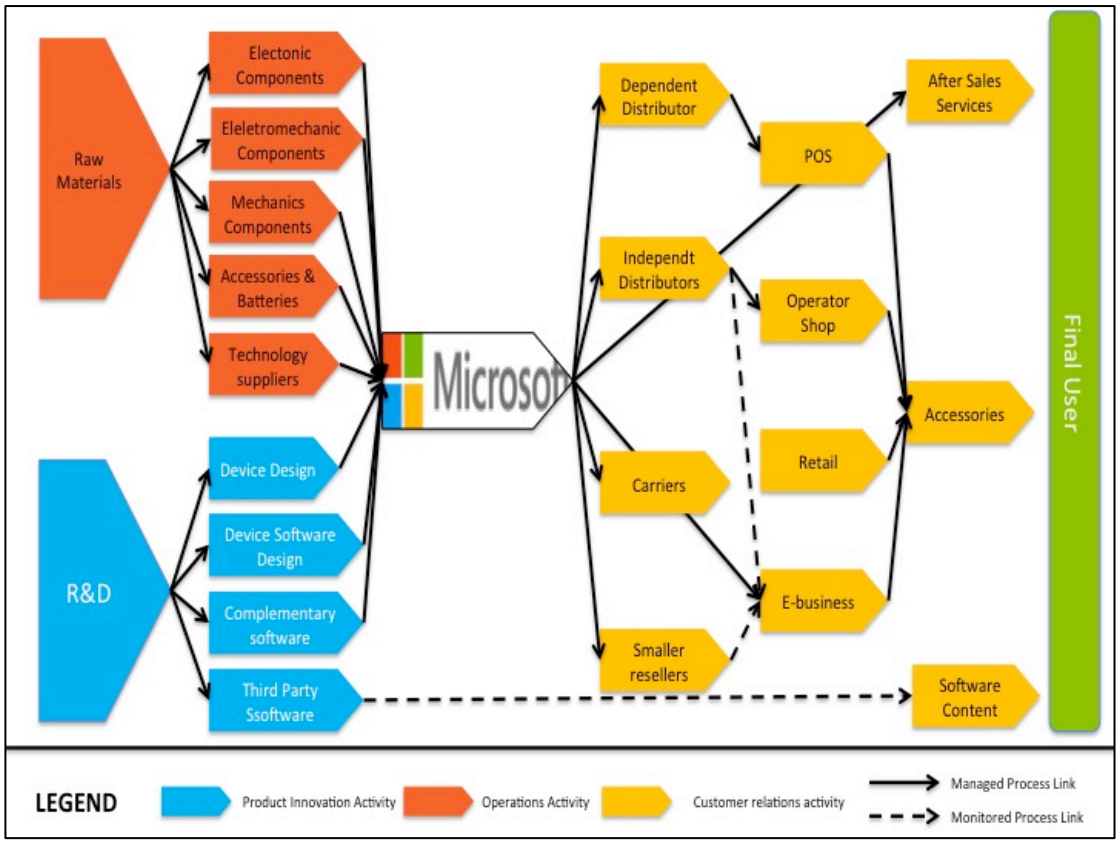


EXHIBIT 2: MOBILE SHIPMENTS

Vendor	2009MS	Vendor	2010 MS	Vendor	2011MS
Nokia	39,0%	Nokia	33,1%	Samsung	19,0%
RIM	19,9%	RIM	16,1%	Apple	18,8%
Apple	14,5%	Apple	15,7%	Nokia	15,6%
HTC	4,7%	Samsung	7,6%	HTC	10,3%
Samsung	3,2%	HTC	7,1%	RIM	8,8%
Vendor	**2012 MS**	**Vendor**	**2013 MS**		
Samsung	30,3%	Samsung	31,3%		
Apple	19,1%	Apple	15,3%		
Nokia	4,9%	Huawei	4,9%		
HTC	4,6%	LG	4,8%		
RIM	4,6%	Lenovo	4,5%		

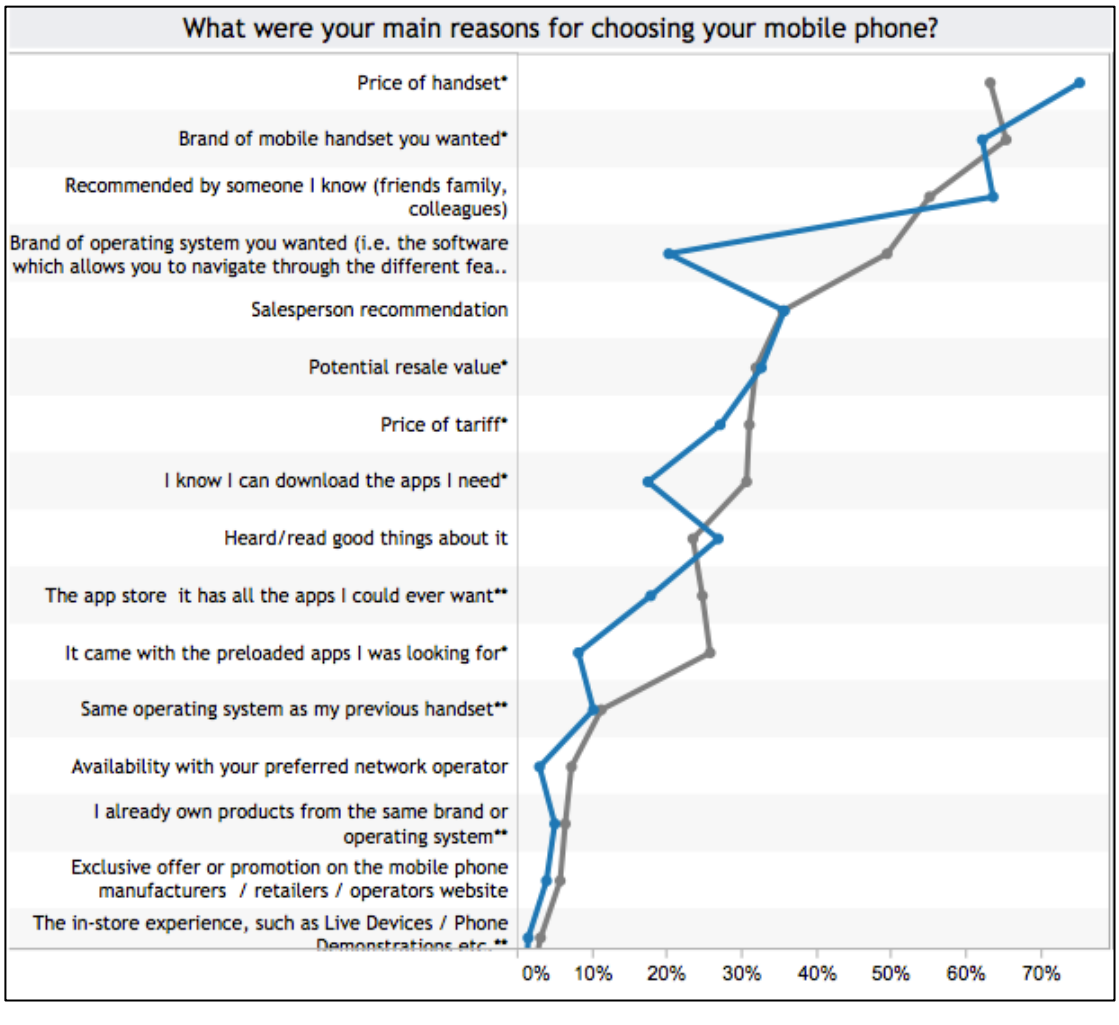
Source: IDC

EXHIBIT 3: CONSUMER LOYALTY

	Previous Phone Brand						
Current Phone Brand	**Apple**	**Samsung**	**HTC**	**LG**	**Motorola**	**Blackberry**	**Nokia**
Apple	78%	31%	31%	35%	34%	48%	30%
Samsung	11%	52%	35%	28%	29%	31%	30%
HTC	4%	6%	27%	7%	17%	10%	20%
LG	1%	5%	0%	18%	6%	0%	15%
Motorola	0%	2%	4%	9%	9%	0%	5%
Blackberry	3%	2%	0%	1%	6%	10%	0%
Nokia	1%	2%	0%	0%	0%	0%	0%

Source: CIRP, 2013.

EXHIBIT 4: NOKIA PURCHASE DRIVERS IN IMEA



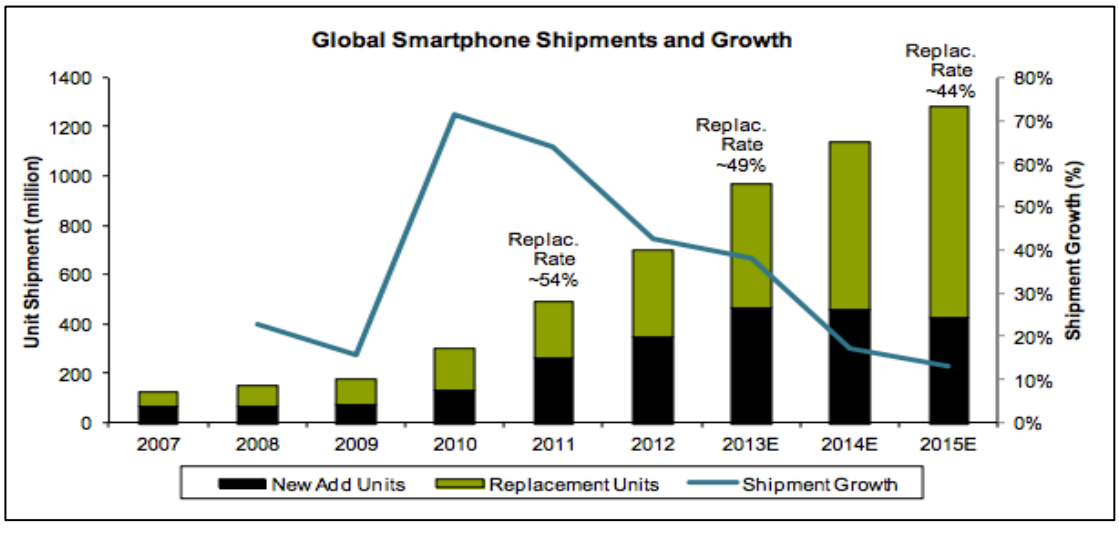
Source: Nokia Business Intelligence

EXHBIT 5: OPERATORS MARKET SHARE

OS	2014 MS	2018 MS
Android	78.9%	76.0%
iOS	14.9%	14.4%
Windows Phone	3.9%	7.0%
BlackBerry	1.0%	0.3%
Others	1.3%	2.3%
Total	100.0%	100.0%

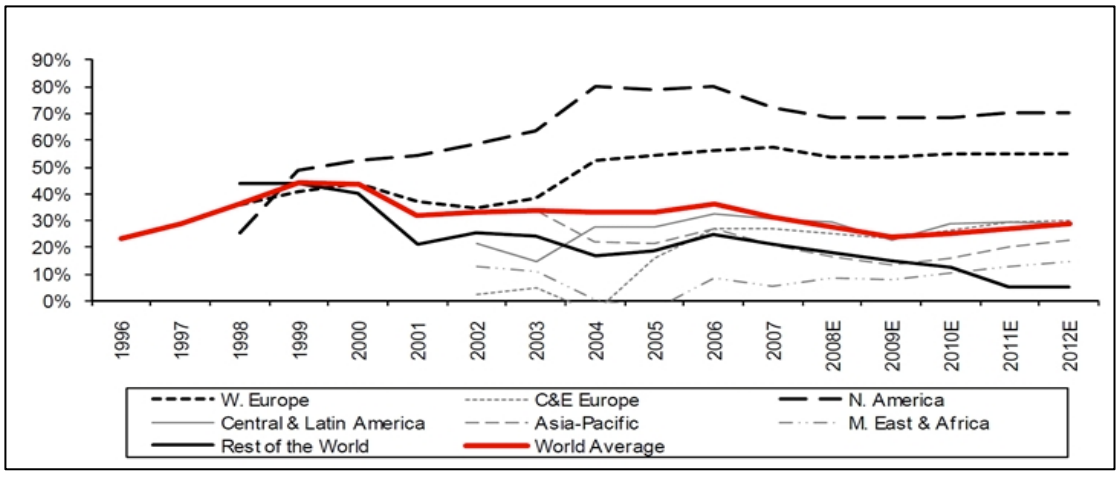
Source: IDC

EXHIBIT 6: REPLACEMENTS SOLD UNITS



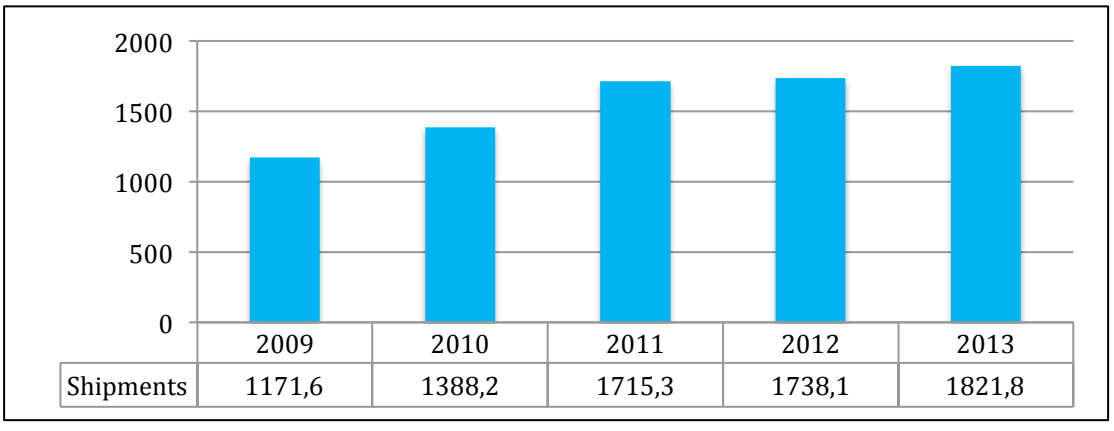
Source: Bernstein Research

EXHIBIT 7: REPLACEMENT RATES BY WORLD REGION



Source: Bernstein Research

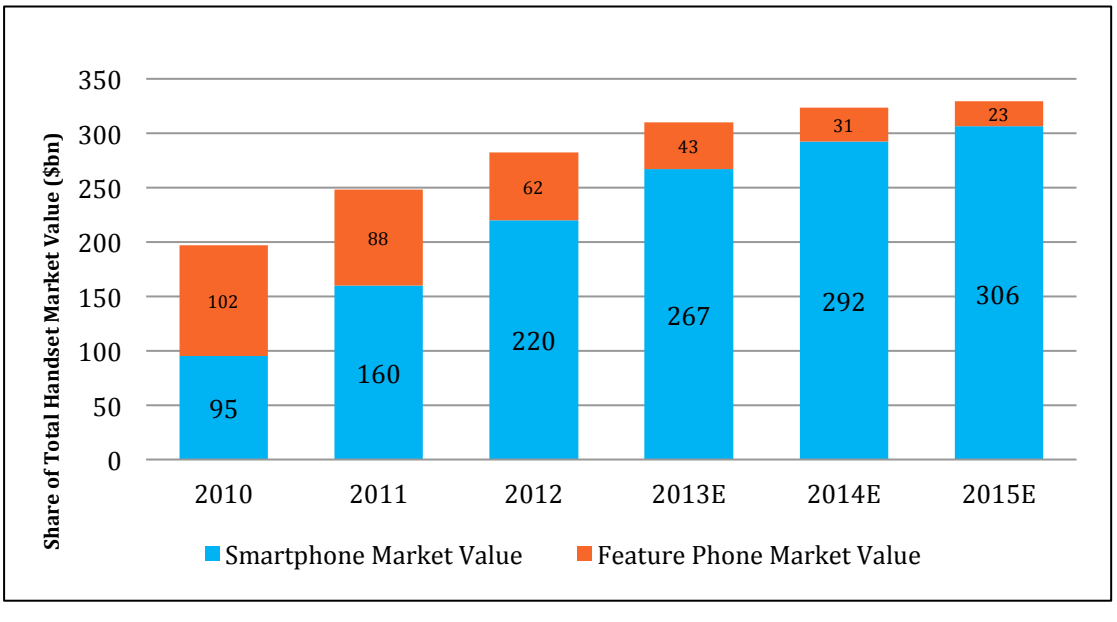
EXHIBIT 8: TOTAL GLOBAL SHIPMENTS FOR MOBILE VENDORS (MILLIONS)



	2009	2010	2011	2012	2013
Shipments	1171,6	1388,2	1715,3	1738,1	1821,8

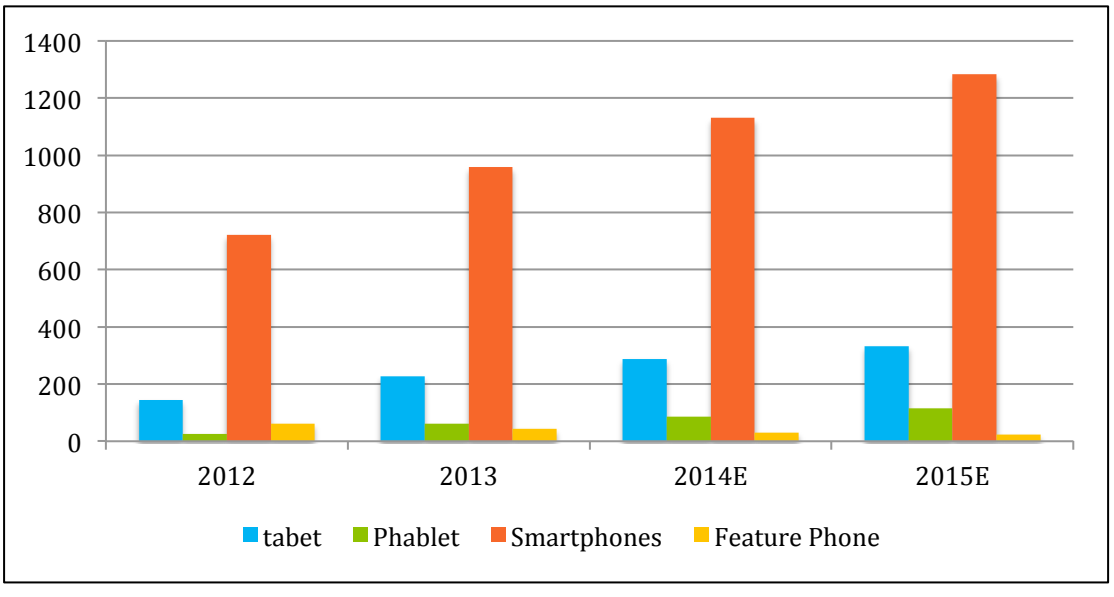
Source: IDC

EXHIBIT 9: SHARE OF TOTAL HANDSET MARKET VALUE ($BN)



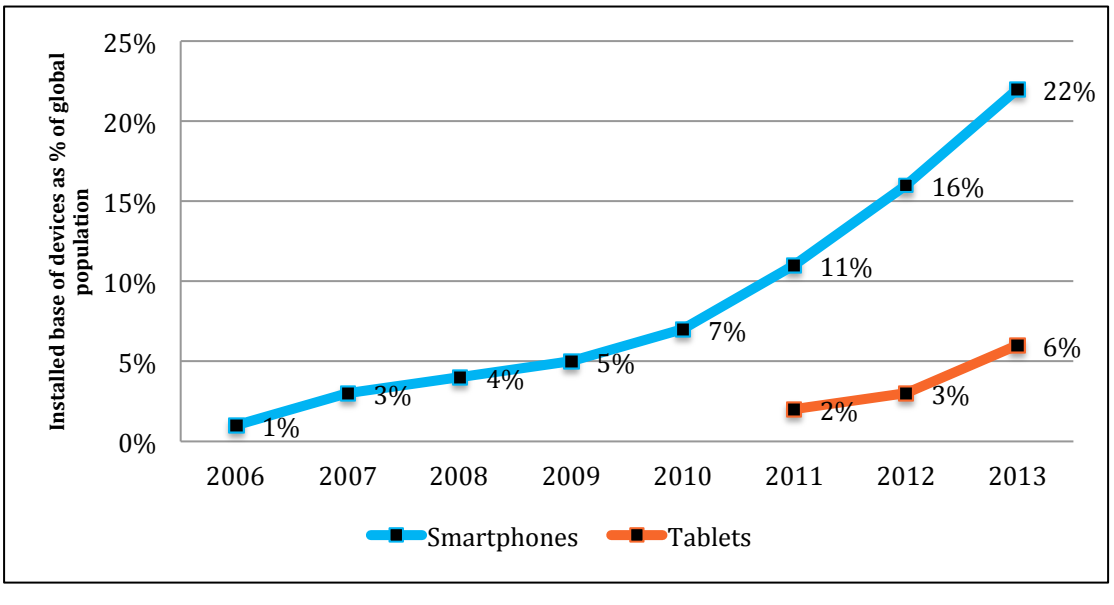
Source: Strategy Analytics and Bernstein estimates and analysis.

EXHIBIT 10: DEVICE SHIPMENTS PER CATEGORY (2012-2015E)



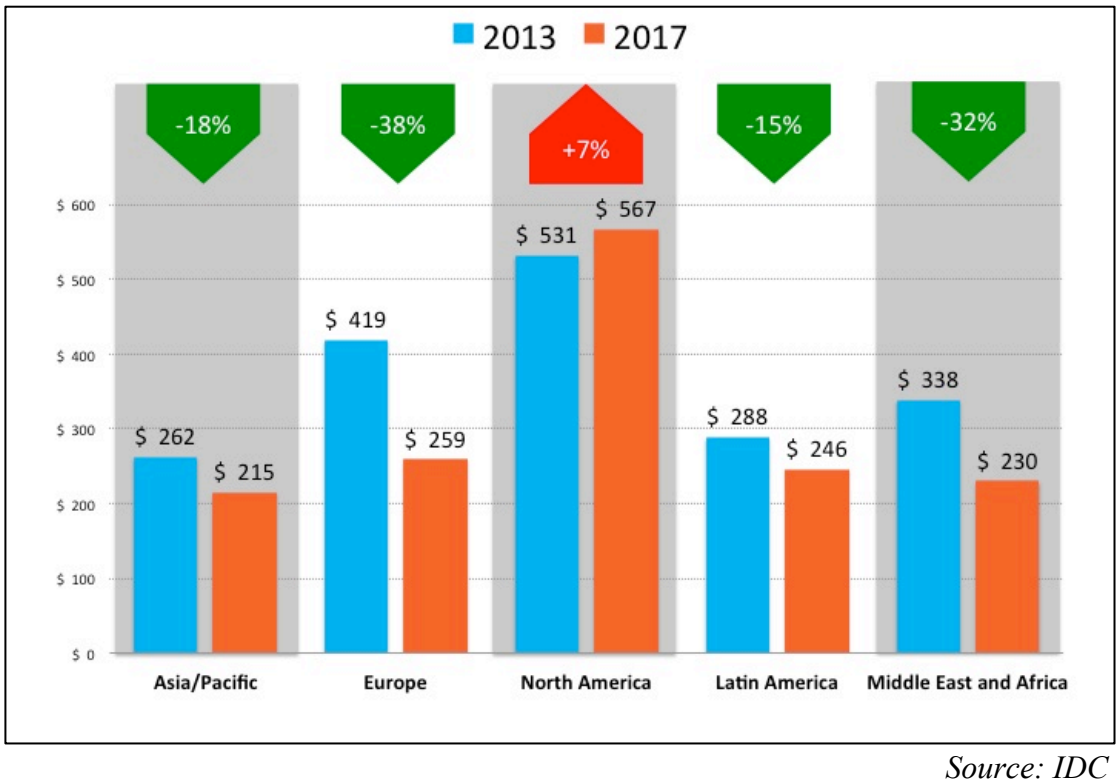
Source: Bernstein Research, IDC, IHS iSupply Research

EXHIBIT 11: GLOBAL DEVICE PENETRATION PER CAPITA



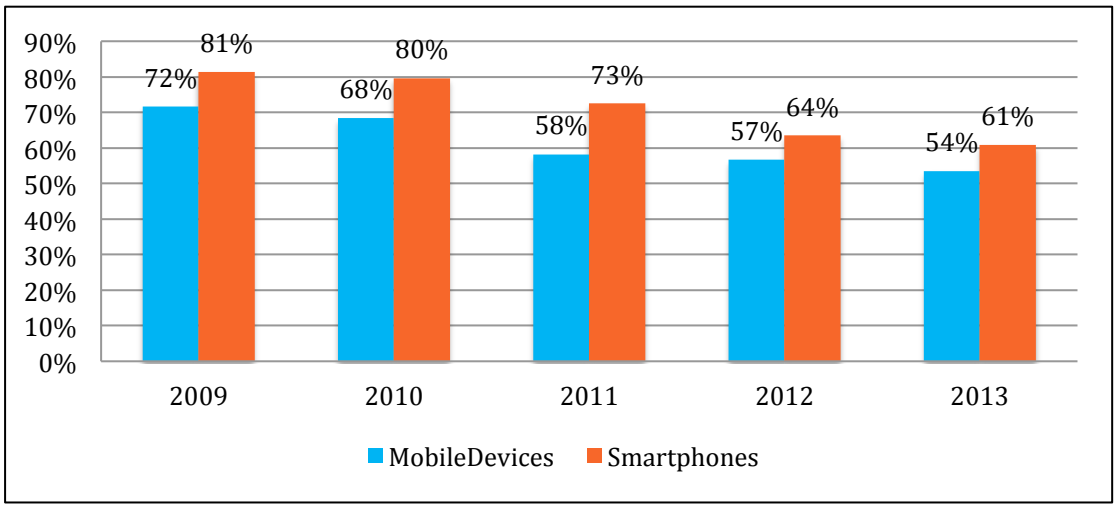
Source: Business Intelligence

EXHIBIT 12: ESTIMATED AVERAGE SELLING PRICE OF A SMARTPHONE 2013-2017



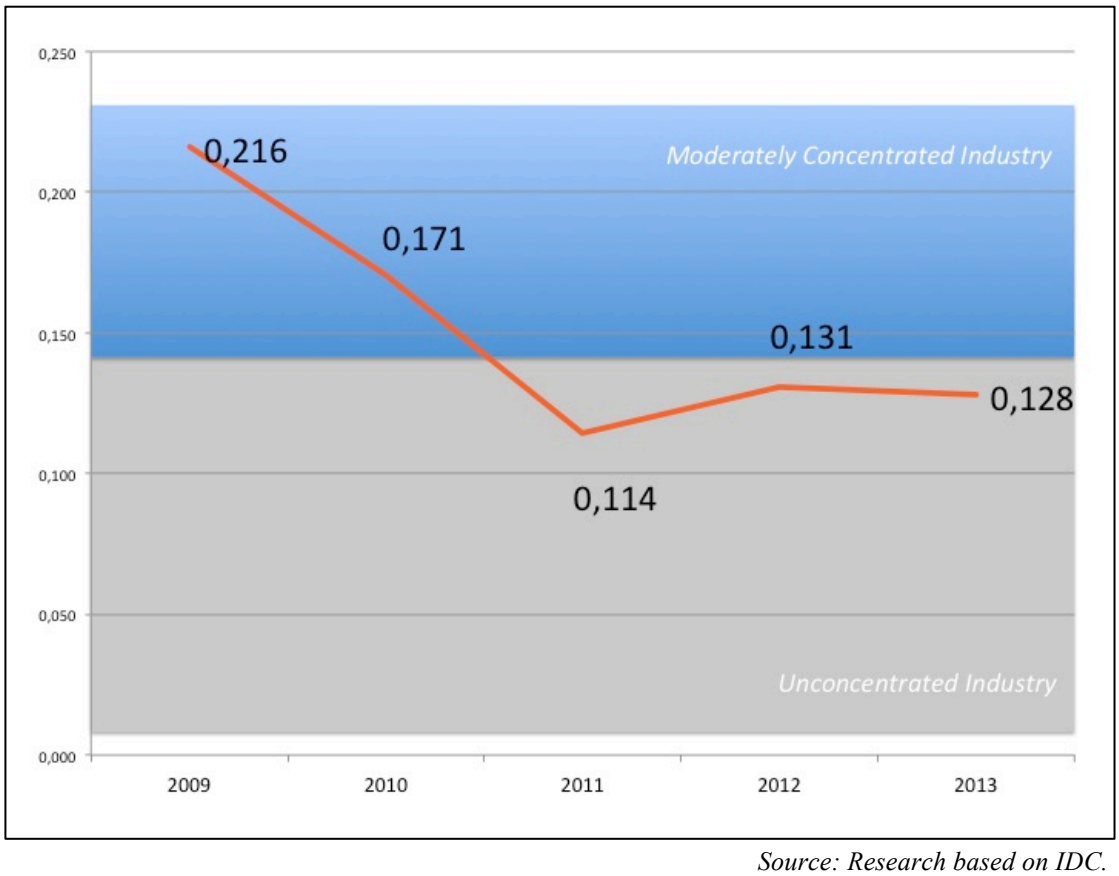
Source: IDC

EXHIBIT 13: AGGREGATE MARKET SHARE TOP 5 MOBILE VENDORS PER PRODUCT CATEGORY



Source: IDC.

EXHIBIT 14: HHI FOR THE SMARTPHONE INDUSTRY



Source: Research based on IDC.